

2005 Annual Inspection and Radiological Survey for the Piqua, Ohio, Decommissioned Reactor Site

Summary

The former Piqua Nuclear Power Facility, a decommissioned nuclear power demonstration facility located on the east bank of the Great Miami River in Piqua, Ohio, was inspected on April 5, 2005. The site is in good physical condition. The annual radiological survey, which is performed in conjunction with the annual inspection, revealed no removable contamination at the 111 sample points. The only direct reading that exceeded the minimum detectable activity was at a floor drain, which has shown detectable beta activity in the past.

The cathodic protection system and the high water alarm system have been routinely inspected and maintained by the City of Piqua.

There is no requirement for maintenance or a follow-up inspection.

1.0 Introduction

This report presents the findings of the annual U.S. Department of Energy (DOE) inspection of the Piqua Nuclear Power Facility (PNPF) in Piqua, Ohio. This facility is assigned to the DOE Office of Legacy Management (LM) for long-term custody and care.

M.E. Reed (Chief Inspector) and M.R. Widdop (Assistant Inspector), both of S.M. Stoller Corporation, the LM Contractor at the DOE office in Grand Junction, Colorado, conducted the inspection on April 5, 2005. Mr. W.J. Sommer, the Piqua Power Systems (PPS) Director, was contacted during the inspection and briefed on the results. A copy of this report will be forwarded to Mr. Sommer.

The purpose of the inspection was to confirm the integrity of the visible features at the facility and to verify that no radiological hazards are present.

2.0 Inspection Results

Features discussed in this report are shown on the attached drawings. Photographs to support specific observations are identified in the text and on the drawings by photograph location (PL) numbers.

The reactor containment building and an associated auxiliary building are used by PPS as office, shop, and storage space. The inspectors walked around the outside of the facility to examine the exterior condition of the PNPF. The inspectors examined the facility interior looking for evidence of structural deterioration and entombment degradation. Inspectors observed falling plaster and peeling paint at the bottom of the spiral staircase on the 56-foot level of the containment building and on the 79-foot level wall of the auxiliary building, which might be evidence of water damage. This damage has been noted on prior inspections and the condition

remains unchanged. Peeling paint was observed on most areas of the interior dome walls; this condition also has been noted on prior inspections and the condition remains unchanged. No evidence of activities that might affect the integrity of the PNPF entombment was observed either on site or off site in the immediate surrounding area.

2.1 Cathodic Protection System

A cathodic protection system is installed on the reactor building to protect the steel shell. Corrosion of the pressure vessel could allow water to enter and spread radioactive contamination beyond the entombment.

The system consists of 10 carbon (graphite) electrodes, buried radially approximately 10 to 20 feet from the building foundation, and a rectifier unit that provides DC current. The rectifier unit is mounted in the break room south of and outside the airlock on the 100-foot level (PL-1). Each carbon electrode is 3 inches in diameter and 60 inches long. The electrodes are connected to the rectifier unit by a header cable; splices are protected in flush-mounted boxes. A structure contact point for monitoring potential can be found on the shell associated with each electrode; some of the contact points also have cables remaining from an abandoned zinc anode protection system. The system also includes reference electrodes and test holes.

Maintenance of the cathodic protection system is specifically addressed in Contract AT(11-1)-1798, dated May 10, 1968, between the U.S. Atomic Energy Commission and the City of Piqua. The City agrees to maintain the system in an operational condition as long as required to preserve the integrity of the entombment until radiological decay renders the contents safe, estimated to be approximately 100 years. Maintenance requirements are not specified but include monthly inspections of the rectifier unit, recording the current and voltage output, and periodic (estimated to be every five years) inspections of the entire system by a qualified service provider. Operating and maintenance costs are borne by the City. The last periodic inspection of the cathodic protection systems was performed on May 10, 2000; a copy of the inspection report was provided to the inspectors.

Inspectors found that output from the rectifier unit is recorded monthly. In 2004, Mr. Sommer received notification that the system was due for inspection and he intended to request budget for that purpose the following year. DOE will request a copy of the inspection results.

2.2 High Water Alarm System

An alarm system is installed in the sump on the 56-foot level to detect high water levels before they rise to the bottom of the pressure vessel. This system is designed to prevent immersion and accelerated corrosion of the vessel. The alarm triggers when the sump fills to near overflow, alerting personnel to both high water and possible sump pump failure. The alarm registers in the power plant on the Supervisory Control and Data Acquisition system, which is monitored 24 hours a day by an operator. The City confirmed proper functioning of the alarm system and it has been included in the monthly building inspection.

2.3 Radiological Survey

S.M. Stoller staff performed the annual radiological survey on the interior of the reactor containment building, auxiliary building, and exterior areas. A total of 111 sample points were investigated for both removable and surface contamination using direct measurements and smears for the detection of alpha and beta-gamma activity. Gamma exposure rates also were measured. Table 1 presents information on the instrumentation used to perform the survey. Background gamma exposure rates, measured on the PNPF grounds, averaged 8 microrem per hour ($\mu\text{rem}/\text{hr}$). General area gamma exposure rates measured throughout the facility ranged from 4 to 12 $\mu\text{rem}/\text{hr}$.

Table 1. Instrumentation for Radiological Survey

Type of Measurement	Radiation	Detector	Meter	Background	Correction Factor	Minimum Detectable Activity
Surface Activity	Alpha	Eberline Model SHP-340/ #16321	Eberline Model E-600/ #15976	30 dpm/100 cm ²	N/A	177 dpm/ 100 cm ²
Surface Activity	Beta	Eberline Model SHP-340/ #16321	Eberline Model E-600/ #15976	900 dpm/100 cm ²	N/A	476 dpm/ 100 cm ²
Exposure Rate	Gamma	N/A	Eberline FH40 GL #19731	8 $\mu\text{rem}/\text{hr}$	N/A	1 $\mu\text{rem}/\text{hr}$
Removable Activity	Alpha	N/A	Protean WPC-9350/ #15686	0.350 cpm	Efficiency 28.34	5.35 dpm/ 100 cm ²
Removable Activity	Beta	N/A	Protean WPC-9350/ #15686	1.850 cpm	Efficiency 49.26	5.64 dpm/ 100 cm ²

Key: cpm = counts per minute; dpm = disintegrations per minute; cm² = square centimeters;
 $\mu\text{rem}/\text{hr}$ = microrem per hour

Table 2 presents direct surface and removable activity results. No removable contamination was found at any of the 111 sampling points. Direct surface measurement results indicate the floor drain at the lowest level of the containment building exhibited a direct beta activity of 3,310 disintegrations per minute per 100 square centimeters. The smear from this location indicated that no removable activity is present. This result is consistent with previous surveys. All other readings were below the minimum detectable activity (MDA) level.

Attached are the survey maps that indicate the location of each direct measurement and smear location. The maps also indicate the results of the gamma exposure rate survey conducted at PNPF.

Table 2. Results of the 2005 Radiological Survey at the Piqua, Ohio, Decommissioned Reactor Site

Location/ Building	Elevation ^a	Direct/ Smear #	Direct Reading Activity dpm/100 cm ² Alpha / Beta		Removable Activity dpm/100 cm ² Alpha / Beta		Remarks
Outside	111 ft.	1	<MDA	<MDA	<MDA	<MDA	Under exhaust vent
Outside	111 ft.	2	<MDA	<MDA	<MDA	<MDA	On HVAC unit
Outside	111 ft.	3	<MDA	<MDA	<MDA	<MDA	On flange
Outside	111 ft.	4	<MDA	<MDA	<MDA	<MDA	On chiller unit
Outside	111 ft.	5	<MDA	<MDA	<MDA	<MDA	On heat exchanger fins
Outside	111 ft.	6	<MDA	<MDA	<MDA	<MDA	On concrete platform
Outside	111 ft.	7	<MDA	<MDA	<MDA	<MDA	On concrete platform
Outside	111 ft.	8	<MDA	<MDA	<MDA	<MDA	On concrete platform
Outside	100 ft.	9	<MDA	<MDA	<MDA	<MDA	On concrete platform
Containment	56 ft.	10	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	11	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	12	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	13	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	14	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	15	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	16	<MDA	3,310	<MDA	<MDA	In drain
Containment	56 ft.	17	<MDA	<MDA	<MDA	<MDA	Floor
Containment	56 ft.	18	<MDA	<MDA	<MDA	<MDA	On pedestal
Containment	56 ft.	19	<MDA	<MDA	<MDA	<MDA	On drain
Containment	56 ft.	20	<MDA	<MDA	<MDA	<MDA	On sump grating
Containment	56 ft.	21	<MDA	<MDA	<MDA	<MDA	On HVAC unit
Containment	56 ft.	22	<MDA	<MDA	<MDA	<MDA	On drain
Containment	56 ft.	23	<MDA	<MDA	<MDA	<MDA	On drain
Containment	79 ft.	24	<MDA	<MDA	<MDA	<MDA	Floor
Containment	79 ft.	25	<MDA	<MDA	<MDA	<MDA	Floor
Containment	79 ft.	26	<MDA	<MDA	<MDA	<MDA	Floor
Containment	79 ft.	27	<MDA	<MDA	<MDA	<MDA	Floor
Containment	83 ft.	28	<MDA	<MDA	<MDA	<MDA	On top of HVAC duct
Containment	83 ft.	29	<MDA	<MDA	<MDA	<MDA	Grating on platform
Containment	83 ft.	30	<MDA	<MDA	<MDA	<MDA	Pipe adjacent to plenum
Containment	83 ft.	31	<MDA	<MDA	<MDA	<MDA	In duct
Containment	83 ft.	32	<MDA	<MDA	<MDA	<MDA	Floor grating
Containment	83 ft.	33	<MDA	<MDA	<MDA	<MDA	Pump pedestal
Containment	83 ft.	34	<MDA	<MDA	<MDA	<MDA	In drain
Containment	83 ft.	35	<MDA	<MDA	<MDA	<MDA	In drain
Containment	83 ft.	36	<MDA	<MDA	<MDA	<MDA	Pump pedestal
Containment	83 ft.	37	<MDA	<MDA	<MDA	<MDA	Stairwell
Containment	100 ft.	38	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	39	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	40	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	41	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	42	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	43	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	44	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	45	<MDA	<MDA	<MDA	<MDA	On drain
Containment	100 ft.	46	<MDA	<MDA	<MDA	<MDA	In duct
Containment	111 ft.	47	<MDA	<MDA	<MDA	<MDA	Floor
Containment	111 ft.	48	<MDA	<MDA	<MDA	<MDA	Floor
Containment	111 ft.	49	<MDA	<MDA	<MDA	<MDA	Floor
Containment	100 ft.	50	<MDA	<MDA	<MDA	<MDA	Airlock floor
Aux. Bldg.	79 ft.	51	<MDA	<MDA	<MDA	<MDA	Floor
Aux. Bldg.	79 ft.	52	<MDA	<MDA	<MDA	<MDA	Floor
Aux. Bldg.	79 ft.	53	<MDA	<MDA	<MDA	<MDA	Floor
Aux. Bldg.	79 ft.	54	<MDA	<MDA	<MDA	<MDA	On drain
Aux. Bldg.	79 ft.	55	<MDA	<MDA	<MDA	<MDA	Floor
Aux. Bldg.	79 ft.	56	<MDA	<MDA	<MDA	<MDA	Floor
Aux. Bldg.	79 ft.	57	<MDA	<MDA	<MDA	<MDA	Floor
Aux. Bldg.	79 ft.	58	<MDA	<MDA	<MDA	<MDA	On drain
Aux. Bldg.	79 ft.	59	<MDA	<MDA	<MDA	<MDA	Floor

Table 2. Results of the 2005 Radiological Survey at the Piqua, Ohio, Decommissioned Reactor Site (continued)

Location/ Building	Elevation ^a	Direct/ Smear #	Direct Reading Activity dpm/100 cm ² Alpha / Beta	Removable Activity dpm/100 cm ² Alpha / Beta	Remarks
Aux. Bldg.	79 ft.	60	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	61	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	62	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	63	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	64	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	65	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	66	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	67	<MDA	<MDA	<MDA
Aux. Bldg.	79 ft.	68	<MDA	<MDA	<MDA
Aux. Bldg.	89 ft.	69	<MDA	<MDA	<MDA
Aux. Bldg.	121 ft.	70	<MDA	<MDA	<MDA
Aux. Bldg.	121 ft.	71	<MDA	<MDA	<MDA
Aux. Bldg.	121 ft.	72	<MDA	<MDA	<MDA
Aux. Bldg.	121 ft.	73	<MDA	<MDA	<MDA
Aux. Bldg.	121 ft.	74	<MDA	<MDA	<MDA
Aux. Bldg.	121 ft.	75	<MDA	<MDA	<MDA
Aux. Bldg.	111 ft.	76	<MDA	<MDA	<MDA
Aux. Bldg.	111 ft.	77	<MDA	<MDA	<MDA
Aux. Bldg.	111 ft.	78	<MDA	<MDA	<MDA
Aux. Bldg.	111 ft.	79	<MDA	<MDA	<MDA
Aux. Bldg.	111 ft.	80	<MDA	<MDA	<MDA
Aux. Bldg.	111 ft.	81	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	82	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	83	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	84	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	85	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	86	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	87	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	88	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	89	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	90	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	91	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	92	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	93	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	94	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	95	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	96	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	97	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	98	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	99	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	100	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	101	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	102	<MDA	<MDA	<MDA
Aux. Bldg.	100 ft.	103	<MDA	<MDA	<MDA
Containment	56 ft.	104	<MDA	<MDA	<MDA
Containment	100 ft.	105	<MDA	<MDA	<MDA
Outside	100 ft.	106	<MDA	<MDA	<MDA
Outside	100 ft.	107	<MDA	<MDA	<MDA
Outside	100 ft.	108	<MDA	<MDA	<MDA
Outside	100 ft.	109	<MDA	<MDA	<MDA
Outside	100 ft.	110	<MDA	<MDA	<MDA
Containment	74 ft.	111	<MDA	<MDA	<MDA

^a Elevations are designated as feet above the lowest floor of the original plant.key: dpm = disintegrations per minute; cm² = centimeters squared; MDA = minimum detectable activity;
< = less than

3.0 Recommendations

On the basis of the inspection and radiological survey results, no follow up inspection is required.

The following action is recommended:

1. Cathodic protection system is due for an inspection by a qualified service provider (page 2).

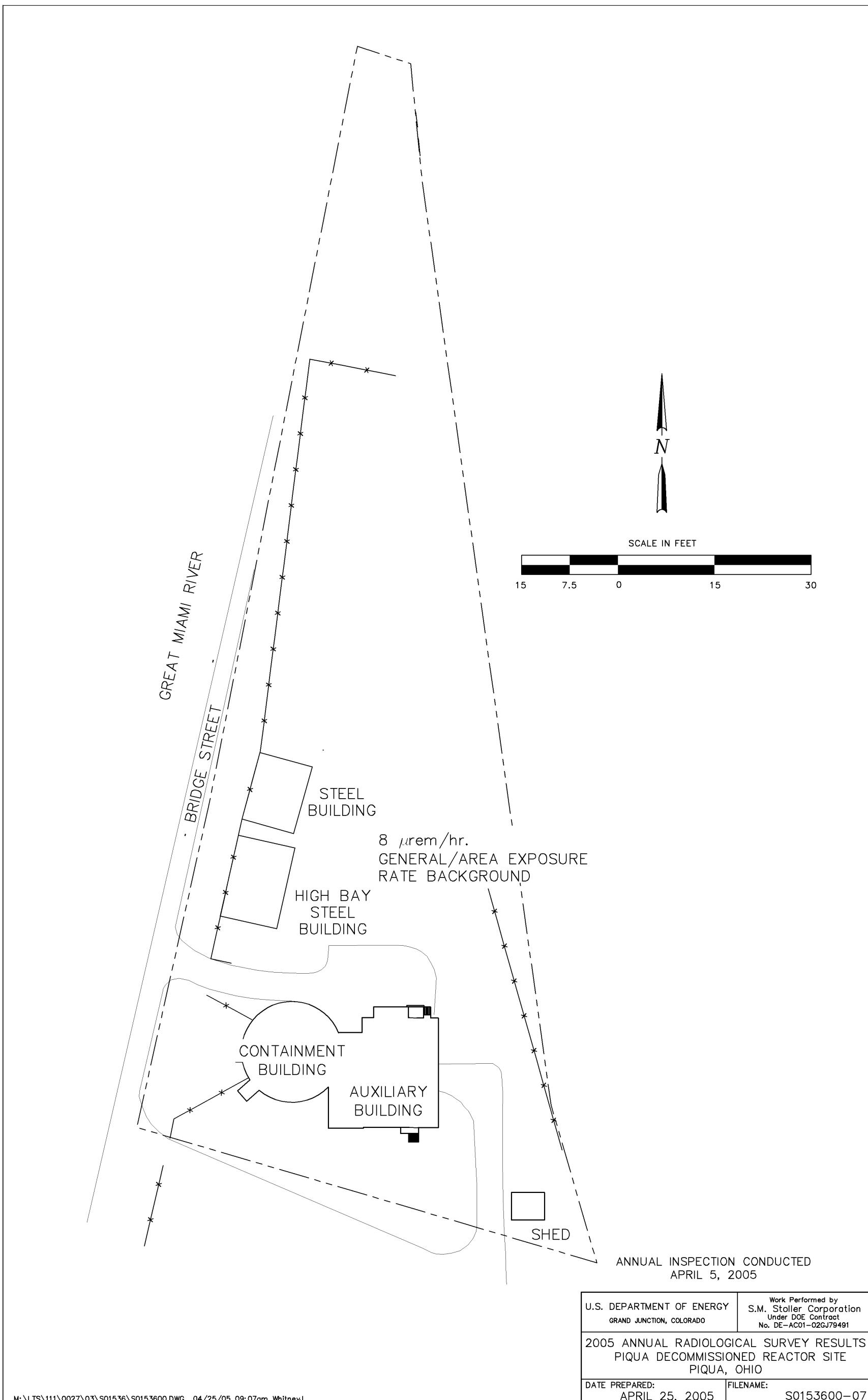
Recommendation: Mr. Sommer (PPS Director) has received notification that the system is due for inspection and he intends to request budget for that purpose. DOE will request a copy of the inspection results.

4.0 Photographs

Photograph Location Number	Elevation	Photograph Description
PL-1	100 ft.	Cathodic protection system rectifier.



PIQ 4/2005. PL-1. Cathodic protection system rectifier.

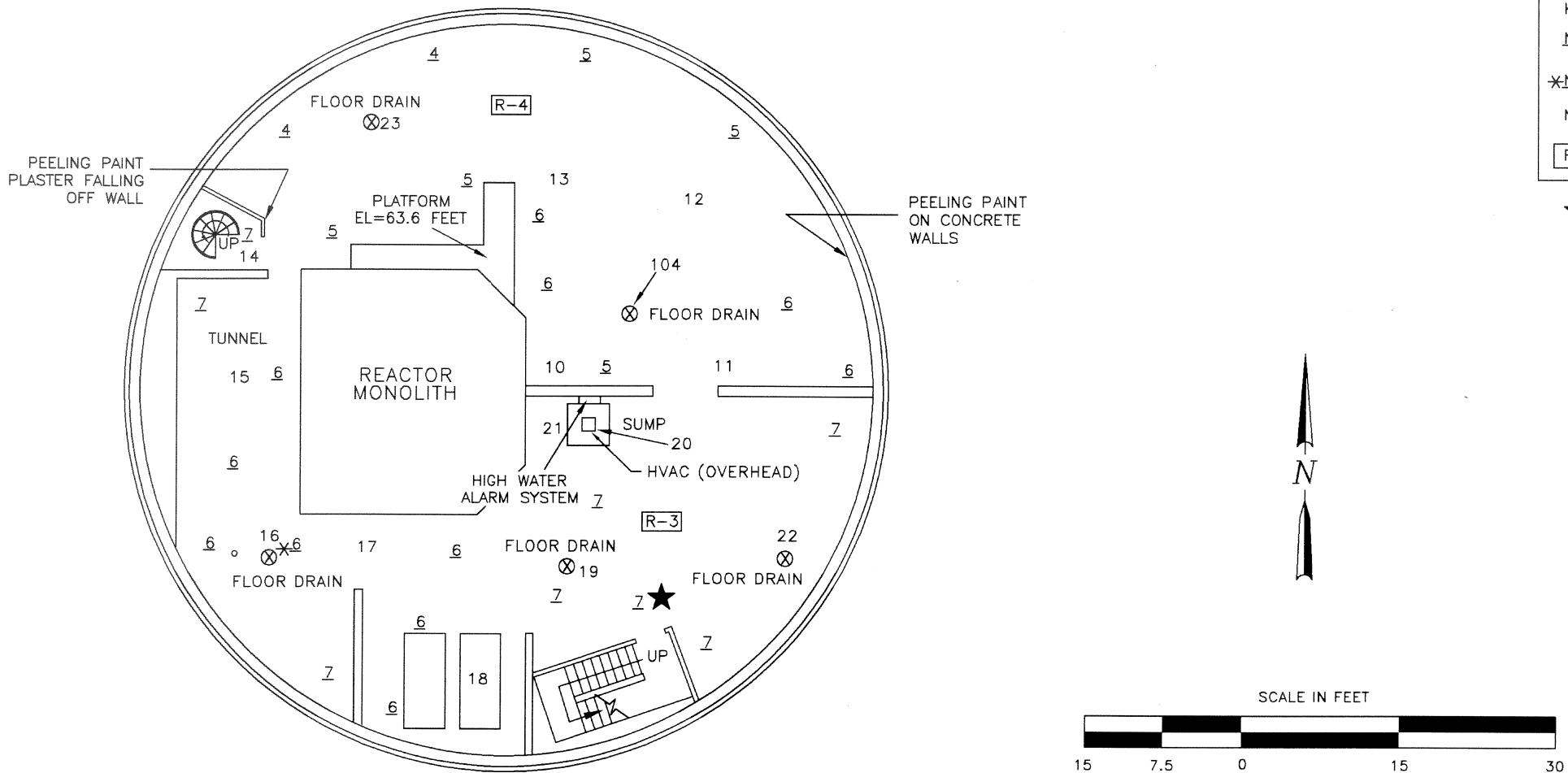


INSTRUMENT	E600/SHP340		WPC-9350	Eberline FH40G-L
SERIAL #	S15976/S16321		15686	19731
CAL. DUE	7-29-06/2-15-06		7-30-05	5-17-05
CORRECTION FACTORS	NA		α EFF. 28.34 β EFF. 49.26	N/A
BACKGROUND	α 30 dpm/100 cm ² β 900 dpm/100 cm ²		α 0.350 CPM β 1.850 CPM	4-12 μ rem/hr

KEY:
 NO. = GENERAL AREA EXPOSURE RATE (μ rem/hr)
 *NO. = CONTACT EXPOSURE RATE (μ rem/hr)
 NO. = SMEAR/DIRECT LOCATION
 R-4 = ROOM NUMBER

SURVEYED BY: DATE:
Mark E. Reed *4-27-05*
 REVIEWED BY: DATE:
M.C. Reed *4/27/05*

★ = BACKGROUND DETERMINATION LOCATION



PLAN - 56 FOOT LEVEL

ANNUAL INSPECTION CONDUCTED
APRIL 5, 2005

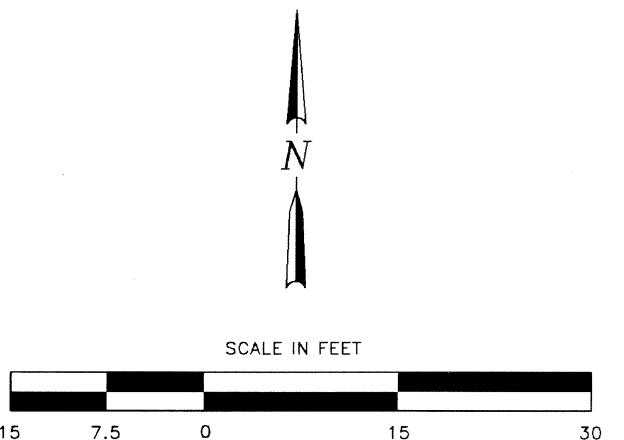
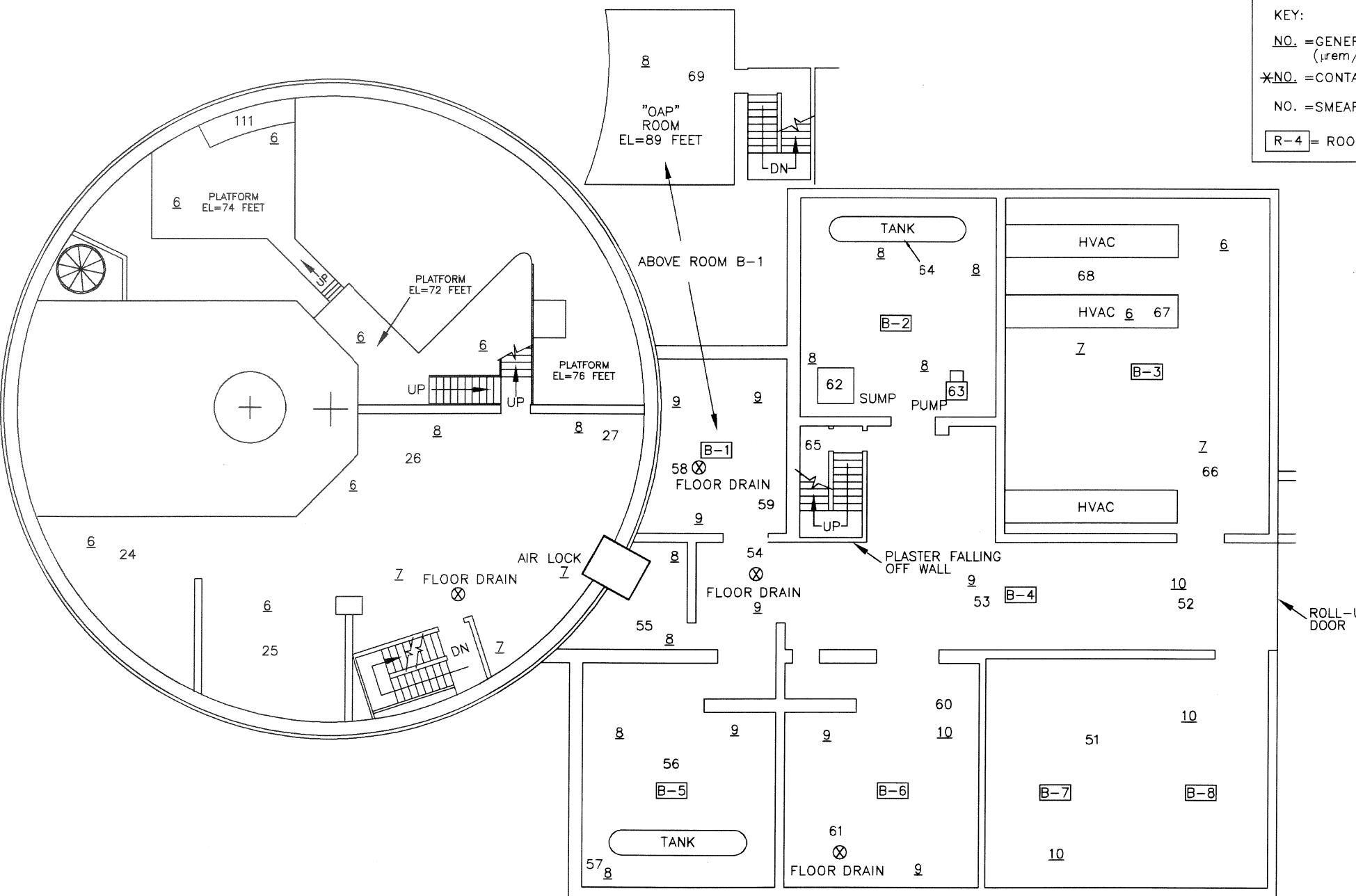
U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-02GJ79491
2005 ANNUAL RADIOLLOGICAL SURVEY RESULTS PIQUA DECOMMISSIONED REACTOR SITE PIQUA, OHIO	
DATE PREPARED: APRIL 25, 2005	FILENAME: S0153600-01

INSTRUMENT	E600/SHP340	WPC-9350	Eberline FH40G-L
SERIAL #	S15976/S16321	15686	19731
CAL. DUE	7-29-06/2-15-06	7-30-05	5-17-05
CORRECTION FACTORS	NA	α EFF. 28.34 β EFF. 49.26	N/A
BACKGROUND	α 30 dpm/100 cm ² β 900 dpm/100 cm ²	α 0.350 CPM β 1.850 CPM	4-12 μ rem/hr

KEY:
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NO. = SMEAR/DIRECT LOCATION
R-4 = ROOM NUMBER

SURVEYED BY: *Mark E. Reed* DATE: *4-27-05*

REVIEWED BY: *M. H. R.* DATE: *4-27-05*



ANNUAL INSPECTION CONDUCTED
APRIL 5, 2005

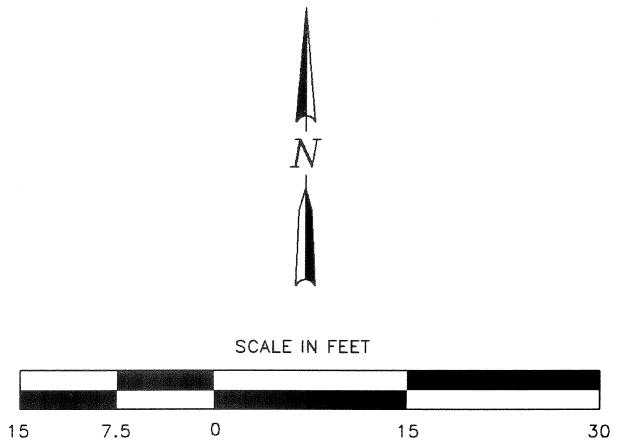
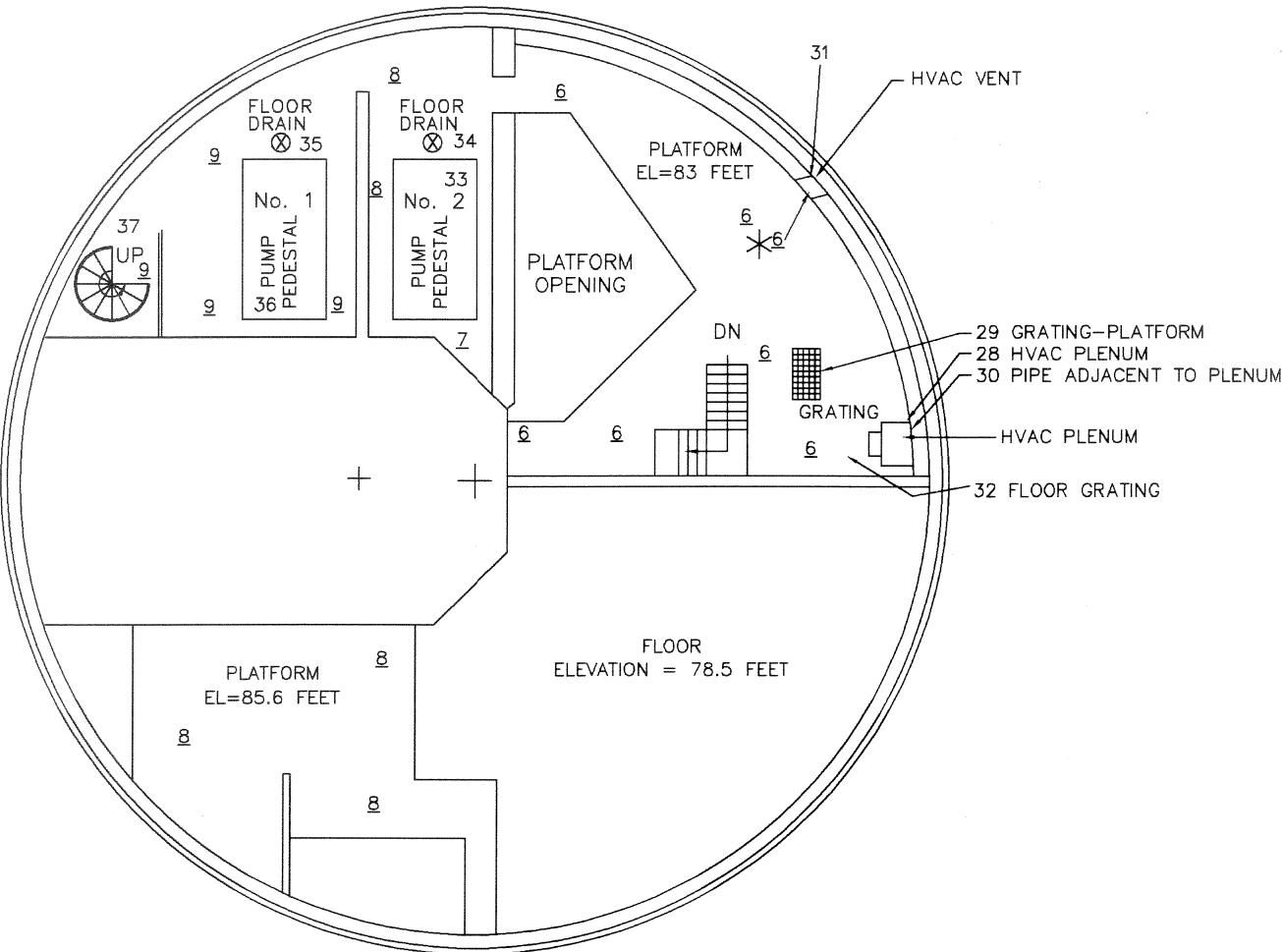
U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-02GJ79491
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2005 ANNUAL RADIOLOGICAL SURVEY RESULTS
PIQUA DECOMMISSIONED REACTOR SITE
PIQUA, OHIO

DATE PREPARED: APRIL 25, 2005 FILENAME: S0153600-02

INSTRUMENT	E600/SHP340		WPC-9350	Eberline FH40G-L
SERIAL #	S15976/S16321		15686	19731
CAL. DUE	7-29-06/2-15-06		7-30-05	5-17-05
CORRECTION FACTORS	NA		α EFF. 28.34 β EFF. 49.26	N/A
BACKGROUND	α 30 dpm/100 cm ² β 900 dpm/100 cm ²		α 0.350 CPM β 1.850 CPM	4-12 μ rem/hr

KEY:	SURVEYED BY:	DATE:
<u>NO.</u> = GENERAL AREA EXPOSURE RATE (μ rem/hr)	<i>Mark E. Reed</i>	4-27-05
X NO. = CONTACT EXPOSURE RATE (μ rem/hr)	<i>M.E.R.</i>	
NO. = SMEAR/DIRECT LOCATION	REVIEWED BY:	DATE:
R-4 = ROOM NUMBER	<i>M.H. Hiner</i>	4/21/05



ANNUAL INSPECTION CONDUCTED
APRIL 5, 2005

U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-02GJ79491
2005 ANNUAL RADIOLOGICAL SURVEY RESULTS PIQUA DECOMMISSIONED REACTOR SITE PIQUA, OHIO	
DATE PREPARED: APRIL 19, 2005	FILENAME: S0153600-03

INSTRUMENT	E600/SHP340	WPC-9350	Eberline FH40G-L
SERIAL #	S15976/S16321	15686	19731
CAL. DUE	7-29-06/2-15-06	7-30-05	5-17-05
CORRECTION FACTORS	NA		α EFF. 28.34 β EFF. 49.26

BACKGROUND	α 30 dpm/100 cm ² β 900 dpm/100 cm ²	α 0.350 CPM β 1.850 CPM	4-12 μ rem/hr
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KEY: SURVEYED BY: DATE:
Mark E. Reed 4/27/05

NO. = GENERAL AREA EXPOSURE RATE (μ rem/hr)

*NO. = CONTACT EXPOSURE RATE (μ rem/hr)

NO. = SMEAR/DIRECT LOCATION

R-4 = ROOM NUMBER

REVIEWED BY: DATE:
M. Whitney 4/27/05

EXPLANATION

- PHOTO LOCATION, ROTATION, AND NUMBER
- GRAPHITE ANODES



SCALE IN FEET



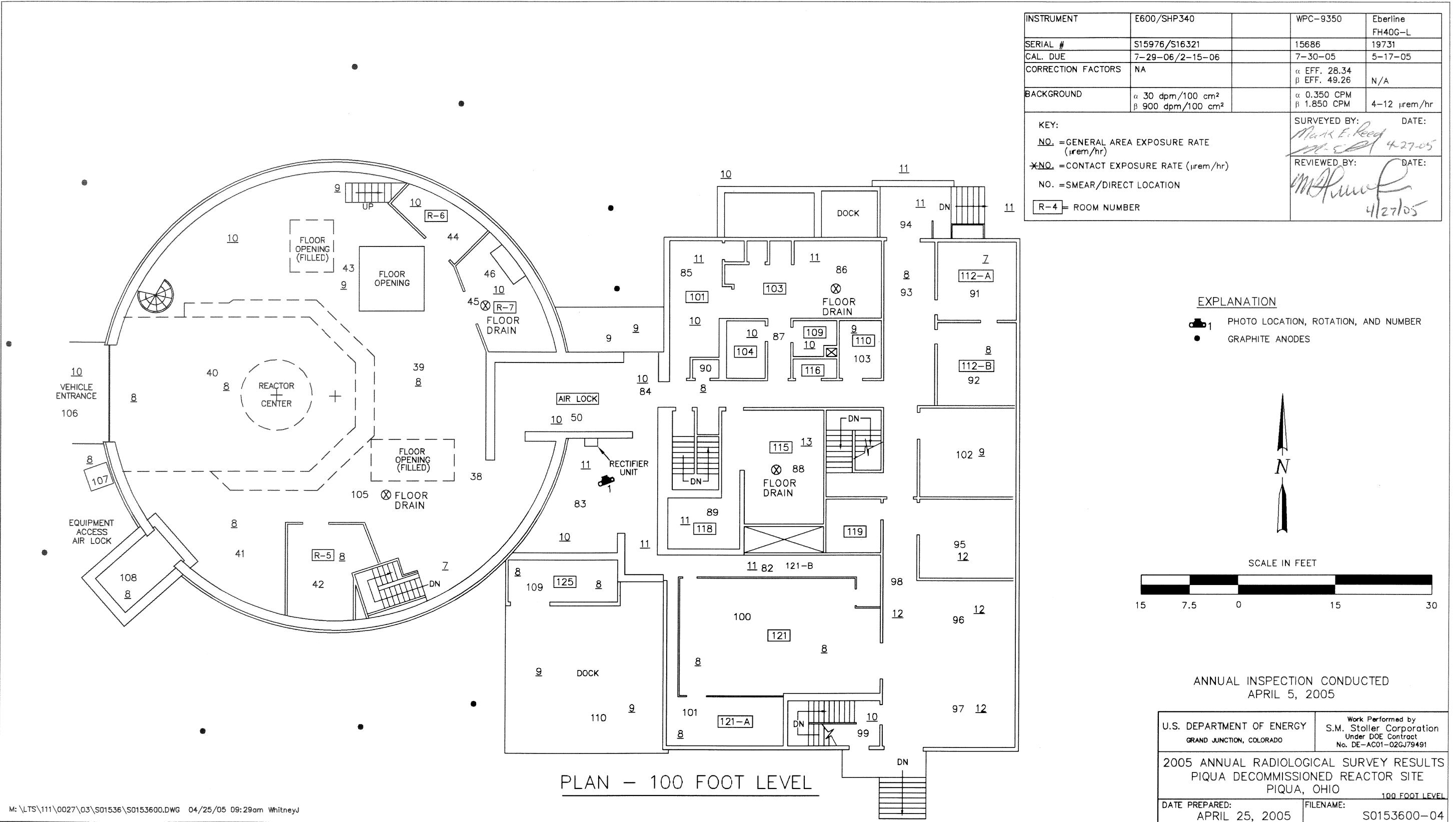
ANNUAL INSPECTION CONDUCTED
APRIL 5, 2005

U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-02GJ79491
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2005 ANNUAL RADIOLoGICAL SURVEY RESULTS
PIQUA DECOMMISSIONED REACToR SITE
PIQUA, OHIO

100 FOOT LEVEL
DATE PREPARED: APRIL 25, 2005 FILENAME: S0153600-04

PLAN - 100 FOOT LEVEL

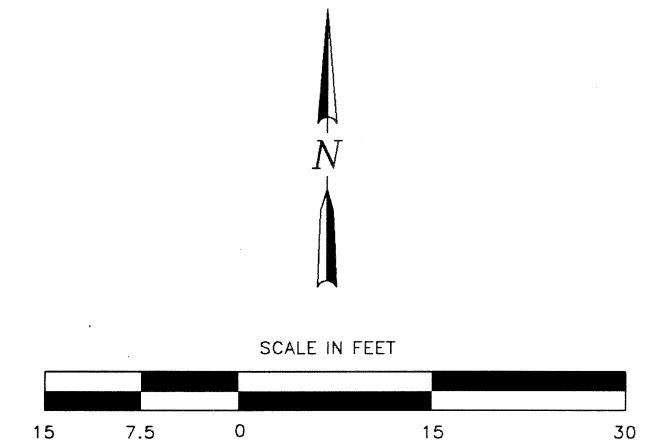
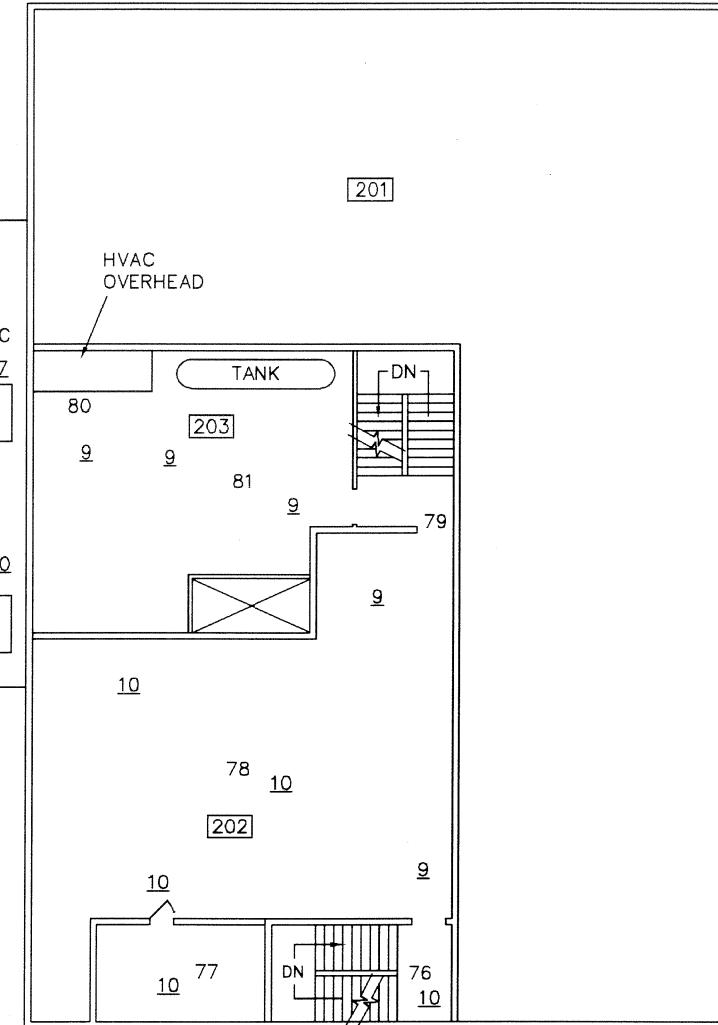
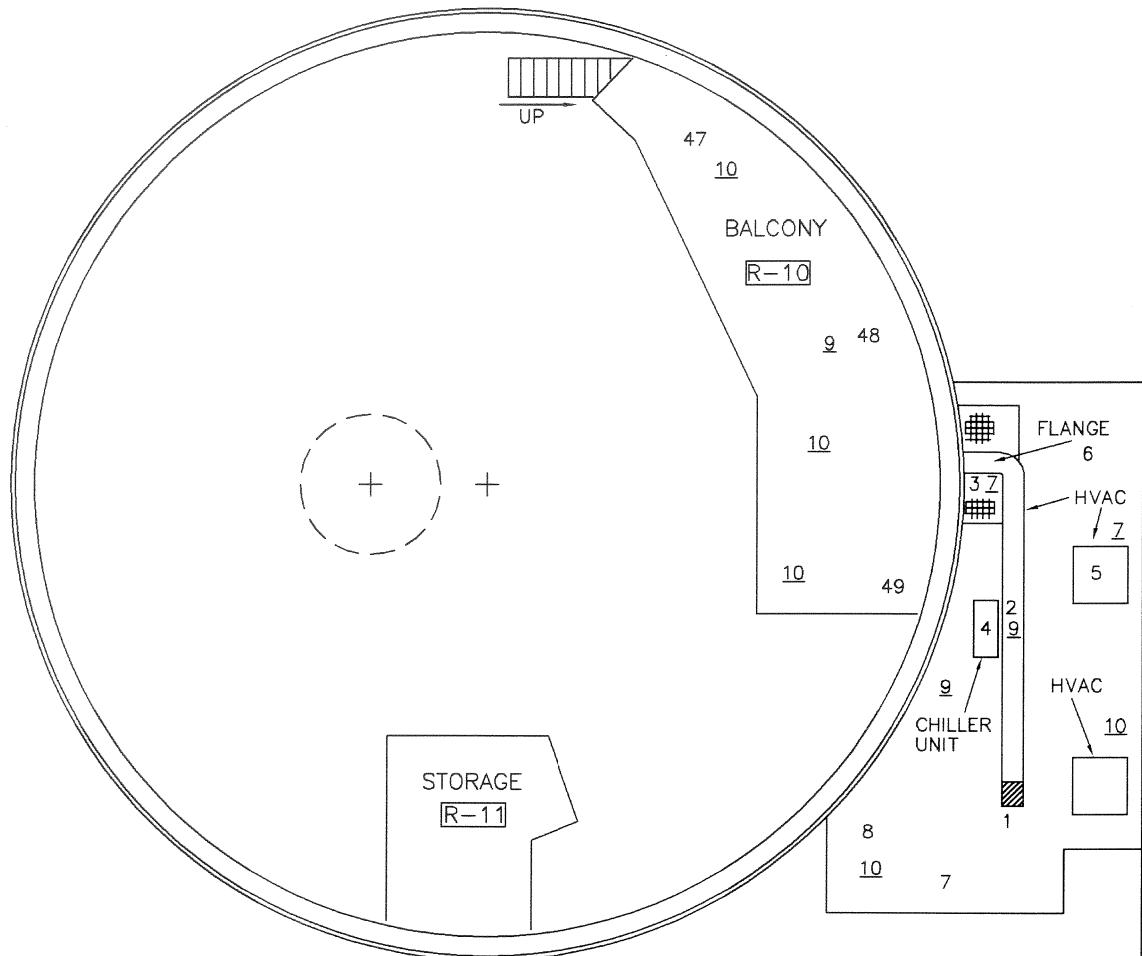


INSTRUMENT	E600/SHP340		WPC-9350	Eberline FH40G-L
SERIAL #	S15976/S16321		15686	19731
CAL. DUE	7-29-06/2-15-06		7-30-05	5-17-05
CORRECTION FACTORS	NA		α EFF. 28.34 β EFF. 49.26	N/A
BACKGROUND	α 30 dpm/100 cm ² β 900 dpm/100 cm ²		α 0.350 CPM β 1.850 CPM	4-12 μ rem/hr

KEY:
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Mark E. Reed 4/27/05

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M. R. Whitney 4/27/05



ANNUAL INSPECTION CONDUCTED
APRIL 5, 2005

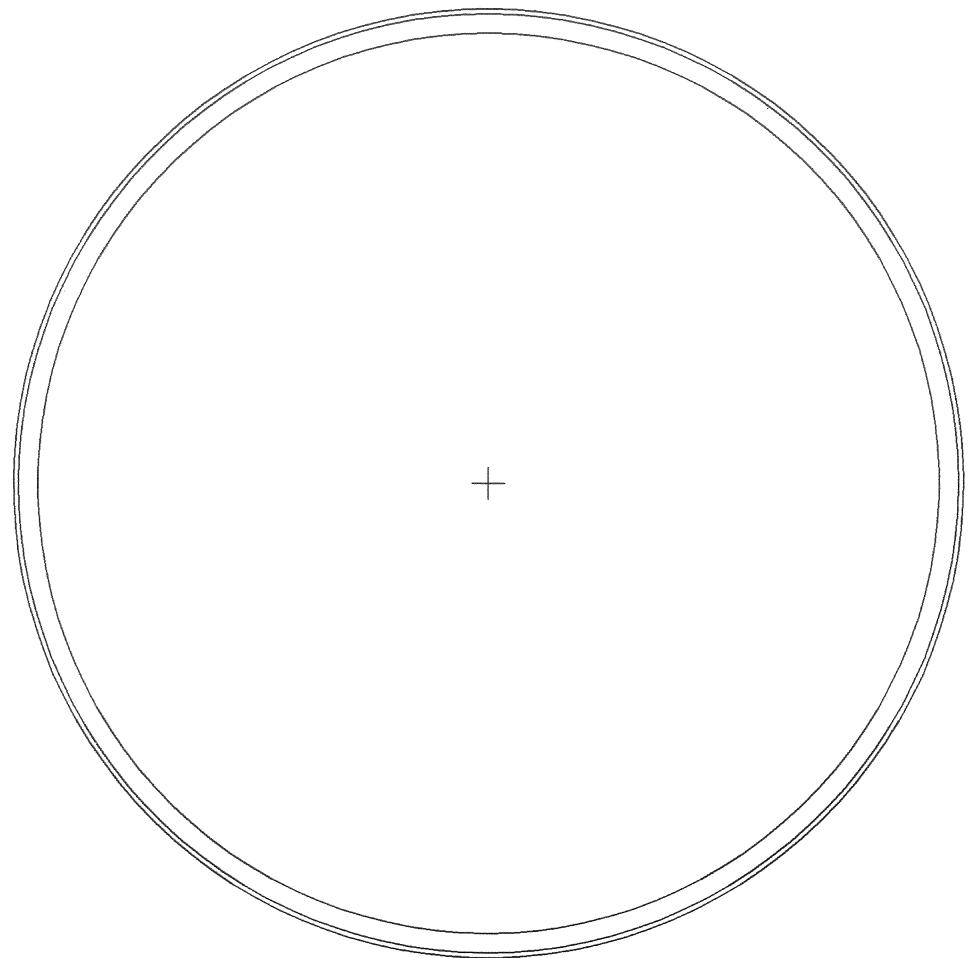
U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-02GJ79491
2005 ANNUAL RADIOLOGICAL SURVEY RESULTS PIQUA DECOMMISSIONED REACTOR SITE PIQUA, OHIO	
DATE PREPARED: APRIL 25, 2005	FILENAME: S0153600-05

INSTRUMENT	E600/SHP340		WPC-9350	Eberline FH40G-L
SERIAL #	S15976/S16321		15686	19731
CAL. DUE	7-29-06/2-15-06		7-30-05	5-17-05
CORRECTION FACTORS	NA		α EFF. 28.34 β EFF. 49.26	N/A
BACKGROUND	α 30 dpm/100 cm ² β 900 dpm/100 cm ²		α 0.350 CPM β 1.850 CPM	4-12 μ rem/hr

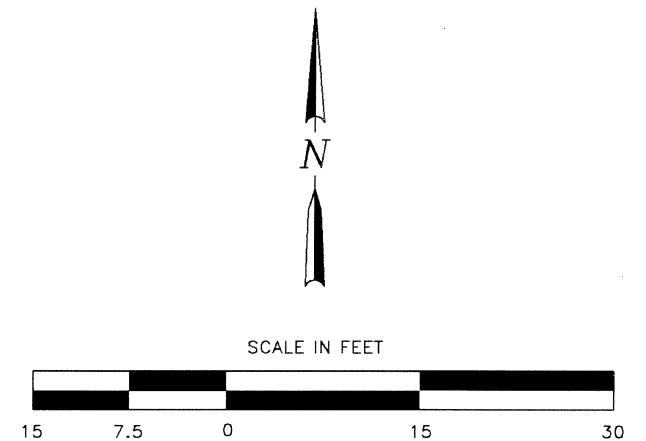
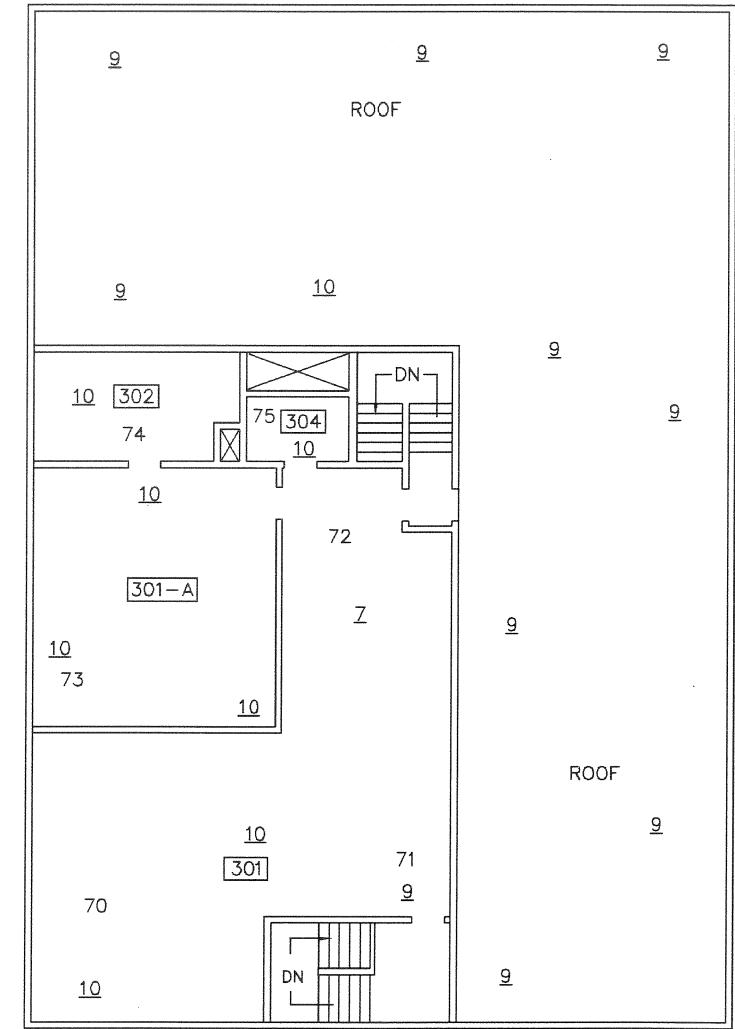
KEY:
NO. = GENERAL AREA EXPOSURE RATE (μ rem/hr)
*NO. = CONTACT EXPOSURE RATE (μ rem/hr)
NO. = SMEAR/DIRECT LOCATION
R-4 = ROOM NUMBER

SURVEYED BY: DATE:
Mark E. Reed 4-27-05
M. Reed 4-27-05

REVIEWED BY: DATE:
Whitney 4-27-05



PLAN - 121 FOOT LEVEL



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2005 ANNUAL RADIOLOGICAL SURVEY RESULTS PIQUA DECOMMISSIONED REACTOR SITE PIQUA, OHIO	
DATE PREPARED: APRIL 25, 2005	FILENAME: S0153600-06